

## **D.T.E. 04-37 Five-Year Energy Efficiency Plan**

---

# **2004 Annual Report**

**(May 1, 2004 - April 30, 2005)**



**June 2005**



One NSTAR Way, SW 360  
Westwood, MA 02090-9230

June 30, 2005

Mary L. Cottrell, Secretary  
Department of Telecommunications and Energy  
One South Station, 2<sup>nd</sup> Floor  
Boston, Massachusetts 02110

**Re: NSTAR Gas Company, D.T. E. 04-37**

Dear Secretary Cottrell:

On behalf of NSTAR Gas Company (the "Company"), I am pleased to enclose the Company's Energy Efficiency Annual Report for the program year ending April 30, 2005. This report is being submitted pursuant to section II.E of the Settlement Agreement in the above-referenced proceeding.

Thank you for your attention to this filing. If you have any questions, please call me at (781) 441-3896.

Sincerely,

Charles A. Olsson  
Manager, Gas Energy Efficiency Services

cc: George Yiankos, Director Gas Division, DTE  
Michael Killion, Hearing Officer, DTE  
Andrew Kaplan, General Counsel, DTE  
Steven Venezia, DOER  
Larry Masland, DOER  
Matthew O'Keefe, DOER  
Jerrold Oppenheim, LEAN  
David S. Rosenzweig, Keegan Werlin LLP  
Erika J. Hafner, Keegan Werlin LLP

**NSTAR Gas, D.T.E. 04-37**  
**Energy Efficiency Program - Annual Status Report**  
**May 1, 2004 through April 30, 2005**

**Residential**

line	PROGRAM/INITIATIVE	Program Planning & Administration Expenditures	Program Marketing Expenditures	Customer Incentives Expenditures	Program Implementation Expenditures	Evaluation & Market Research Expenditures	Total Expenditures	No. of Rebates or Participants	Total Annual Savings (Therms)
	<b>Residential</b>								
1	High Efficiency Heating Rebate	75,144	0	303,150	16,339	0	394,633	1,486	
2	High Efficiency Water Heating Rebate	6,499	0	49,700	2,479	0	58,678	200	
3	ENERGY STAR Thermostat Rebate	14,951	0	60,039	5,775	0	80,765	2,401	
4	ENERGY STAR Homes	17,286	4,495	108,677	36,595	0	167,053	348	
5	ENERGY STAR Windows	24,428	0	69,790	16,180	0	110,398	7,617	
6	Weatherization Program	53,244	0	475,009	77,829	0	606,081		134,082
7	Massachusetts Building Code Support	2,680	0	0	4,263	0	6,943		
8	Market Transformation	49,998	83,764	0	0	5,006	138,768		
9	<b>Total Residential</b>	244,230	88,259	1,066,365	159,461	5,006	1,563,320	12,052	134,082

**Low-Income**

line	PROGRAM/INITIATIVE	Program Planning & Administration Expenditures	Program Marketing Expenditures	Customer Incentives Expenditures	Program Implementation Expenditures	Evaluation & Market Research Expenditures	Total Expenditures	No. of Rebates or Participants	Total Annual Savings (Therms)
	<b>Low-Income</b>								
10	<b>Residential Low-Income</b>								
10a	Single-Family	62,783	0	543,920	57,602	0	664,305		101,260
11	<b>Commercial Low-Income</b>								
11a	Multi-Family	36,238	0	627,469	165,277	0	828,984		59,118
12	<b>Total Low-Income</b>	99,021	0	1,171,389	222,878	0	1,493,289	0	160,378

**Commercial & Industrial**

line	PROGRAM/INITIATIVE	Program Planning & Administration Expenditures	Program Marketing Expenditures	Customer Incentives Expenditures	Program Implementation Expenditures	Evaluation & Market Research Expenditures	Total Expenditures	No. of Rebates or Participants	Total Annual Savings (Therms)
	<b>Commercial &amp; Industrial</b>								
13	Infrared Rebate	8,719	0	28,500	2,243	1,838	41,299	58	
14	High Efficiency Heating Rebate	8,499	0	31,350	2,339	0	42,188	68	
15	High Efficiency Water Heating Rebate	1,346	0	15,900	848	0	18,094	54	
16	ENERGY STAR Thermostat	182	0	175	0	0	357	114	
17	Efficient Food Service Equipment	2,396	0	5,700	3,390	0	11,485	19	
18	Custom	144,630	0	595,363	20,331	0	760,324		439,610
19	Massachusetts Building Code Support	4,070	0	0	4,263	0	8,334		
20	Market Transformation	46,902	89,969	0	0	450	137,322		
21	<b>Total C&amp;I</b>	216,743	89,969	676,988	33,414	2,288	1,019,401	313	439,610
22	<b>COMPANY TOTALS</b>	559,994	178,228	2,914,742	415,753	7,294	4,076,010	12,365	734,070

**NSTAR Gas, D.T.E. 04-37**  
**Energy Efficiency Program Changes**

**Residential Programs**

<b>Program Name</b>	<b>Program Year May 1, 2004 - April 30, 2005</b>	<b>Modifications Planned for Program Year May 1, 2005 - April 30, 2006</b>
<b>High Efficiency Water Heating Rebate</b>	Prior to May 1, 2005, the program offered customers a \$300 mail-in rebate for indirect-fired water heaters connected to a natural gas heating systems (30-75 gallons).	Effective May 1, 2005, the Company and GasNetworks introduced a \$300 mail-in rebate for the purchase and installation of instantaneous gas-fired water heaters equipped with an electronic pilot and having a minimum energy factor (EF) of .82. The Company and GasNetworks will continue to offer the \$300 mail-in rebate for indirect-fired water heaters connected to a natural gas heating system as well.

**NSTAR Gas, D.T.E. 04-37**  
**Energy Efficiency Program Changes**

**Low-Income Programs**

Program Name	Program Year May 1, 2004 - April 30, 2005	Modifications Planned for Program Year May 1, 2005 - April 30, 2006
--------------	--	--

**No changes planned.**

**NSTAR Gas, D.T.E. 04-37**  
**Energy Efficiency Program Changes**

**Commercial & Industrial Programs**

<b>Program Name</b>	<b>Program Year May 1, 2004 - April 30, 2005</b>	<b>Modifications Planned for Program Year May 1, 2005 - April 30, 2006</b>
<b>High Efficiency Water Heating Rebate</b>	Prior to May 1, 2005, the program offered customers a \$300 mail-in rebate for indirect-fired water heaters connected to a natural gas heating systems (30-75 gallons).	Effective May 1, 2005, the Company and GasNetworks introduced a \$300 mail-in rebate for the purchase and installation of instantaneous gas-fired water heaters equipped with an electronic pilot and having a minimum energy factor (EF) of .82. The Company and GasNetworks will continue to offer the \$300 mail-in rebate for indirect-fired water heaters connected to a natural gas heating system as well.

**NSTAR Gas, D.T.E. 04-37**  
**Energy Efficiency Forecasted Program Budget**  
**May 1, 2005 through April 30, 2006**

**Residential Detail**

line	PROGRAM/INITIATIVE	Program Planning & Administration	Program Marketing	Customer Incentives	Program Implementation	Evaluation & Market Research	Total
	<b>Residential Program Budgets:</b>						
1	High Efficiency Heating Rebate	65,953		296,800	28,980		391,733
2	High Efficiency Water Heating Rebate	11,707		57,637	4,323		73,666
3	ENERGY STAR Thermostat Rebate	12,282		50,000	15,000		77,282
4	ENERGY STAR Homes	42,094		118,575	64,606		225,275
5	ENERGY STAR Windows	16,949		80,500	9,200		106,649
6	Weatherization Program	93,316		478,500	15,370		587,186
7	Massachusetts Building Code Support	1,512			8,000		9,512
8	Market Transformation	28,342	126,580		0	10,000	164,922
9	DOER Assessment	5,603					5,603
10	<b>Total Residential Budget</b>	277,758	126,580	1,082,012	145,479	10,000	1,641,828

**Low-Income Detail**

line	PROGRAM/INITIATIVE	Program Planning & Administration	Program Marketing	Customer Incentives	Program Implementation	Evaluation & Market Research	Total
	<b>Low-Income Program Budgets:</b>						
	<b>Residential Low-Income</b>						
11	Residential	64,344	0	272,436	68,109	0	404,889
11a	Carryover			40,047	10,012		50,059
	<b>Total Residential Low-Income Budget</b>	64,344	0	312,483	78,121	0	454,948
	<b>Low-Income</b>						
12	Multi Family	59,107	0	490,549	122,637	0	672,293
12a	Carryover			(109,056)	(44,516)		(153,572)
	<b>Total Commercial &amp; Industrial Budget</b>	59,107	0	381,493	78,121	0	518,721
13	<b>LEAN Funding</b>	26,331					26,331
14	<b>Total Low-Income Budget</b>	149,782	0	693,976	156,242	0	1,000,000

**Commercial & Industrial Detail**

line	PROGRAM/INITIATIVE	Program Planning & Administration	Program Marketing	Customer Incentives	Program Implementation	Evaluation & Market Research	Total <sup>(1)</sup>
	<b>Commercial &amp; Industrial Program Budgets:</b>						
15	Infrared Rebate	8,531		31,827	1,432		41,790
16	High Efficiency Heating Rebate	8,916		30,036	1,777		40,729
17	High Efficiency Water Heating Rebate	1,438		4,774	358		6,570
18	ENERGY STAR Thermostat Rebate	1,093		3,000	900		4,993
19	Efficient Food Service Equipment Program	2,611		8,820	496		11,927
20	Custom	182,456		839,753	27,600		1,049,809
21	Massachusetts Building Code Support	4,204		0	15,000		19,204
22	Market Transformation	25,640	79,140	0	0	8,000	112,780
23	DOER Assessment	5,602					5,602
24	<b>Total C&amp;I Budget</b>	240,491	79,140	918,210	47,564	8,000	1,293,405
25	<b>COMPANY TOTALS</b>	668,031	205,720	2,694,198	349,284	18,000	3,935,233

(1) Consistent with sections II.C and II.G of the Settlement Agreement approved by the Department of Telecommunication and Energy in NSTAR Gas Company, D.T.E. 04-37 (September 13, 2004), the anticipated C&I program activity for PY05 has been reviewed and, accordingly, the program budget has been increased for the current program year.

**NSTAR Gas, D.T.E. 04-37**  
**Energy Efficiency Program Portfolio**

**Benefit/Cost Ratios by Program**  
**Lifetime Impacts of Measures Installed from May 2005 through April 2006**

<b>Program/Initiative</b>	<b>Measure Life</b>	<b>Benefits (2004\$)</b>	<b>Costs (2004\$)</b>	<b>B/C Ratio</b>
<b>Company-Specific Programs</b>				
-Residential Weatherization	25	\$2,258,621	\$1,133,504	1.99
-Low-Income Single-Family	21	\$647,708	\$454,948	1.42
-Low-Income Multi-Family	20	\$759,638	\$518,721	1.46
-C&I Custom	15	\$6,756,650	\$2,434,302	2.78
<b>Total Company Specific Programs</b>		<b>\$10,422,617</b>	<b>\$4,541,474</b>	<b>2.29</b>
<b>Regional GasNetworks Programs</b>				
-Residential High Efficiency Heating Rebate	20	\$2,157,909	\$643,786	3.35
-Residential High Efficiency Water Heating Rebate	20	\$121,719	\$78,704	1.55
-Residential ENERGY STAR Thermostat Rebate	10	\$441,229	\$130,455	3.38
-Residential ENERGY STAR Homes	25	\$1,757,767	\$1,305,126	1.35
-Residential ENERGY STAR Windows	35	\$620,556	\$191,042	3.25
-C&I Infrared Rebate	20	\$433,838	\$75,298	5.76
-C&I High Efficiency Heating Rebate	20	\$113,571	\$50,239	2.26
-C&I High Efficiency Water Heating Rebate	20	\$10,082	\$7,046	1.43
-C&I ENERGY STAR Thermostat Rebate	10	\$26,474	\$8,228	3.22
-Efficient Food Service Equipment	15	\$64,014	\$21,238	3.01
<b>Total Regional Programs</b>		<b>\$5,747,159</b>	<b>\$2,511,163</b>	<b>2.29</b>
-Massachusetts Building Code Support (Res. and C&I) <sup>(1)</sup>		N/A	\$0	N/A
-Market Transformation (Res. And C&I) <sup>(1)</sup>		N/A	\$0	N/A
<b>TOTAL ALL PROGRAMS</b>		<b>\$16,169,776</b>	<b>\$7,052,637</b>	<b>2.29</b>

Benefit/cost ratios have been calculated in accordance with the guidelines established in D.T.E. Docket 98-100 using the Total Resource Cost Test.

<sup>(1)</sup> Cost effectiveness was not calculated for the MA Building Code Support or Market Transformation initiatives because there are no direct measured savings for these efforts at this time. The costs associated with these initiatives were allocated across other programs.



**NSTAR Gas, D.T.E. 04-37  
Energy Efficiency Program**

**Summary of 2005-2006 Performance Incentives**

	<b>Program/Initiative</b>	<b>Program Budget *</b>	<b>Measure Unit</b>	<b>Goal</b>	<b>Incentive Dollars</b>
	<b>Residential Programs:</b>				
1	High Efficiency Heating Rebate	\$436,977	rebates	1,400	\$14,380
2	High Efficiency Water Heating Rebate	\$82,174	rebates	170	\$2,704
3	ENERGY STAR Thermostat Rebate	\$86,208	rebates	2,000	\$2,837
4	ENERGY STAR Homes	\$251,293	certifications	527	\$8,270
5	ENERGY STAR Windows	\$118,967	rebates	8,050	\$3,915
6	Weatherization Programs **	\$1,109,952	therms	175,520	\$36,527
	<b>Commercial &amp; Industrial Programs:</b>				
7	Infrared Rebate	\$46,793	rebates	64	\$1,540
8	High Efficiency Heating Rebate	\$45,605	rebates	25	\$1,501
9	High Efficiency Water Heating Rebate	\$7,357	rebates	16	\$242
10	ENERGY STAR Thermostat Rebate	\$5,591	rebates	120	\$184
11	Efficient Food Service Equipment	\$13,355	rebates	22	\$439
12	Custom **	\$1,693,424	therms	787,233	\$55,728
13	<b>Total</b>	<b>\$3,897,696</b>			<b>\$128,266</b>

If the Company achieves less than 75% of goal (the Threshold Performance Level), it will receive no incentive for that program.  
If the Company achieves 100% of goal (the Design Performance Level), it will receive 100% of the incentive for that program.  
If the Company achieves 125% of goal (the Exemplary Performance Level), it will receive 125% of the incentive for that program.  
Between 75% and 125% of goal, the incentive will be based on a linear interpolation between the Threshold and Exemplary Performance Levels.  
For Non-numeric goals there are no thresholds, company must meet design goal.

After Tax Shareholder Incentive = Average Yield of three-month Treasury Bill/(.60775) x Energy Efficiency Budget)<sup>(1)</sup>

(1) Average Yield of the three-month U.S. T-Bill assumed to be 1.97%  
and .60775 = 1 minus the effective corporate tax rate.

\* Includes all program allocated costs minus DOER Assessment and LEAN Funding.

\*\* Includes low income weatherization programs.